

## REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated September 16, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

### Status of the Claims

Claims 1-42 are under consideration in this application. Claims 1, 2, 4, 7, 10, 13-17, 24, 28-29 and 31 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. A new claim 42 is being added to recite another embodiment described in the specification.

### Additional Amendments

All the amendments to the claims, specification and the drawings are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

### Formality Rejection

The drawings were objected to for not showing elements 126A, 22, and L described in the specification. The claims, the Abstract and the specification were objected to for informalities. The specification is further objected to for failing to provide proper antecedent basis for the sapphire plate recited in claim 4. Claims 15-16 were rejected under 35 U.S.C. § 112, first paragraph, as not being enabled by the specification. Claims 7 and 24 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

As indicated, the specification, the claims, and the drawings are amended as required by the Examiner. In particular, "126A" is being added in Fig. 4, "22" is being amended into "122" in paragraph [37], and "L" is being deleted from paragraph [41]. In addition, claims 15-16 are being amended to claim the embodiment depicted in Fig. 6. Accordingly, the

withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

#### Allowed Subject Matter

Claims 28-41 were allowed, and claim 14 will be allowed if rewritten in independent from including all limitations of the base claim and any intervening claims. Applicants respectfully remind the Examiner that claim 13 was not addressed in any of the objections or rejections, and thus is assumed to be allowable.

As claim 14 is being rewritten in independent to include all limitations of the base claim and any intervening claims, it is in condition for allowance.

#### Prior Art Rejection

Under 35 U.S.C. §102, claims 1-2 and 6-8 were rejected as being anticipated by US Pat. No. 6,188,063 to Schroeder (hereinafter “Schroeder”); claims 1, 2, 6, 9 were rejected as being anticipated by US Pat. No. 5,514,871 to Hayes et al. (hereinafter “Hayes”); claims 1, 6, 9, 26-27 were rejected as being anticipated by US Pat. No. 5,382,799 to May (hereinafter “May ’799”); and claims 1 and 6-8 were rejected as being anticipated by US Pat. No. 6,278,120 to May (hereinafter “May ’120”). Under 35 U.S.C. §103, claims 3-5 were rejected as being unpatentable over Schroeder in view of US Pat. No. 6,239,435 to Castleman (hereinafter “Castleman”) or over Hayes in view of Castleman; claims 17-24 were rejected as being unpatentable over Schroeder; claims 10-12 and 17-24 were rejected as being unpatentable over Hayes; and claim 25 was rejected as being unpatentable over Schroeder, in view of US Pat. No. 4,825,078 to Huber et al. (hereinafter “Huber”) or over Hayes in view of Huber. These rejections have been carefully considered, but are most respectfully traversed, as more fully discussed below.

The radiation sensor of the invention (for example, the embodiment depicted in Fig. 4), as now recited in claim 1, comprises: a housing, an attenuator with at least one cavity 124 for attenuating optical radiation, and at least one detector 126 (also, Fig. 5c shows two detectors). A window 122 of the housing for receiving external radiation and the detector 126 are located on an identical side of the attenuator.

The invention recited in claim 42 is directed to a radiation sensor (for example, the embodiment depicted in Fig. 4) comprising: a housing with a window for receiving external radiation thereinto, an attenuator with at least two cavities 124, 125 for attenuating optical

radiation, and a detector 126. The two cavities 124, 125 are arranged side by side in a direction parallel with a receiving surface of the window 122.

Applicants respectfully submit that none of the cited prior art references teaches or suggests (1) that “a window 122 of the housing for receiving external radiation and the detector 126 are located on an identical side of the attenuator” (claim 1), or (2) that “the two cavities 124, 125 are arranged side by side in a direction parallel with a receiving surface of the window 122” (claim 42) as the invention.

In contrast, Schroeder’s housing window and the detector 52 are located at two ends of the housing, rather than “on an identical side of the attenuator” as the invention. In addition, Schroeder’s first cavity 50 and second cavity 53’ (Fig. 3B) are arranged in one line along the light traveling direction 2, rather than “side by side in a direction parallel with a receiving surface of a housing window” as in the invention.

The other cited prior art references share the same deficiencies as Schroeder.

Applicants contend that none of the cited prior art references teaches or suggests each and every feature of the present invention as recited in independent claims 1 and 42. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

### Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of

the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,

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SPF/JCM/JT

**IN THE DRAWINGS:**

Please enter the attached corrected drawings Figs. 4 & 5B, in which a reference number "126A" is being added in Fig. 4 and a reference number "166" is being added in Fig. 5B, to replace Figs. 4 and 5B as originally filed. A Letter to Draftsperson is also submitted herewith.